BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work:	Improvements to Roads and Drains at Vyshanavi Layout in Ward No. 11, (Kuvempunagara).
Estimated Cost :	Rs. 37.00 Lakhs
Job Code:	011-22-000006
Head of Account :	P-3726 Zonal Public Works - POW Works
Name of Agency:	Sri K. Shankar Reddy, No. 18, K-No. 370, 414, 413, 188, Bhuvaneshwarinagara, Bangalore - 560024.
Work order No:	EE/BTP/BBMP/E-PMT/15(50366)/WO/19/2022-23 D: 22-04-2022.

Measurements Recarded on : 26/05/22

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate	Amount
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 1 to 2 is =							**221.04**	212.00	**46860.00**
2	Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm** and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 3 is =							**4.80**	4717.00	**22642.00**
3	Providing and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6, edges of stones** chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 4 is =							**18.90**	5056.00	**95558.00**
4	Providing **ruled pointing 20 mm deep** to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications								Sqm	
	Culvert Pointing									
	Lake Gate opp	2	8.00				0.90	14.40		
	opp Dhanalakshmi Store Cross Road	2	6.00				0.90	10.80		
	opp Dhanalakshmi Store	2	6.00				0.90	10.80		
				Total Qty =				**36.00**		
				Qty Limited to =				**36.00**	130.00	**4680.00**

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhath Bengaluru Mahanagara Palike

K. Sankar Reddy

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate	Amount
	Measurements Recarded on :	30/05/22								
5	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge - (Data rate Approved).								Sqm	
	Culvert Deck Slab									
	Lake Gate opp	13	0.60			1.50		11.70		
	opp Dhanalakshmi Store Cross Road	10	0.60			1.50		9.00		
	opp Dhanalakshmi Store	10	0.60			1.50		9.00		
				Total Qty =				**29.70**		
				Qty Limited to =				**28.80**	4713.00	**135734.00**

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Vidayranyapura Sub Division

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Vidyaranyapura Sub Division
Bruhath Bengaluru Mahanagara Palike

K. Sankarreddy

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate	Amount
	Measurements Recarded on :	30/05/22								
6	Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 5 is =							**2240.00**	36.00	**80640.00**
7	Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications.								Sqm	
	Qty Vide Item No.06							2240.00		
								2240.00	5.00	**11200.00**
8	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 6 is =							**515.20**	1741.00	**896963.00**
9	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 7 is =							**2240.00**	29.00	**64960.00**
10	Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen**								Cum	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 8 is =							**112.00**	5887.00	**659344.00**
11	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty as per Premeasurement Recorded vide E-Bill Page No. 9 is =							**2240.00**	4.00	**8960.00**
12	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm	
	Qty Vide Item No. 11							2240.00		
								2240.00	11.00	**24640.00**
13	Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen**								Cum	
	Vyshnavi Layout 1st Main Road									
	From Layout Enterance to 1st Cross	1	15.00	5.30	6.00	5.65	0.040	3.39		
		1	4.00	6.00	6.50	6.25	0.040	1.00		
		1	12.00	6.00	6.50	6.25	0.040	3.00		
		1	15.00	5.30	5.30	5.30	0.040	3.18		
		1	15.00	5.30	5.70	5.50	0.040	3.30		

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Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate	Amount
		1	15.00	5.70	5.70	5.70	0.040	3.42	13.84	
		1	15.00	5.70	5.60	5.65	0.040	3.39		
		1	15.00	5.60	5.60	5.60	0.040	3.36		
		1	15.00	5.60	5.00	5.30	0.040	3.18		
		1	15.00	5.00	6.00	5.50	0.040	3.30		
		1	15.00	6.00	5.80	5.90	0.040	3.54		
		1	15.00	5.80	5.10	5.45	0.040	3.27		
		1	15.00	5.10	5.10	5.10	0.040	3.06		
		1	15.00	5.10	4.80	4.95	0.040	2.97		
		1	16.00	4.80	4.80	4.80	0.040	3.07		
	Cross Road									
		1	15.00	6.00	6.10	6.05	0.040	3.63		
		1	15.00	6.10	5.80	5.95	0.040	3.57		
		1	15.00	5.80	5.70	5.75	0.040	3.45		
		1	15.00	5.70	5.80	5.75	0.040	3.45		
	Vyshnavi Layout 3rd Main Road									
	Cross Road to Dead end	1	15.00	5.60	6.80	6.20	0.040	3.72		
		1	15.00	6.80	5.80	6.30	0.040	3.78		
		1	15.00	5.80	4.80	5.30	0.040	3.18		
		1	15.00	4.80	5.00	4.90	0.040	2.94		
		1	15.00	5.00	5.30	5.15	0.040	3.09		
		1	15.00	5.30	5.40	5.35	0.040	3.21		
		1	15.00	5.40	5.50	5.45	0.040	3.27		
		1	15.00	5.50	5.50	5.50	0.040	3.30		
		1	13.00	5.50	5.50	5.50	0.040	2.86		
				Total Qty =				89.88		
				Qty Limited to =				89.60	8700.00	779520.00

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Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidayranyapura Sub Division

K. Sankar Reddy

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Rate	Amount
	Measurements Recarded on :	02/06/22								
14	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.								Sqm	
	Vyshnavi Layout 1st Main Road									
	From Layout Enterance to 1st Cross	2	15.00			0.10		3.00		
		2	4.00			0.10		0.80		
		2	12.00			0.10		2.40		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	16.00			0.10		3.20		
	Cross Road									
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
	Vyshnavi Layout 3rd Main Road									
	Cross Road to Dead end	2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	13.00			0.10		2.60		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
		2	15.00			0.10		3.00		
				Total Qty =				90.00		
				Qty Limited to =				89.60	395.00	35392.00
	Sub Total									2867093.00
	GST @ 12%									344051.00
									Total	3211144.00

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ASSISTANT EXECUTIVE ENGINEER
Vidyaranyapura Sub-Division
Bruhat Bengaluru Mahanagara Palike

2/6

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

K. Sankar Reddy